

PATENT SPECIFICATION

NO DRAWINGS

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Date of filing Complete Specification Sept. 14, 1959.

Application Date Sept. 12, 1958.

No. 29319/58.

Complete Specification Published May 29, 1963.

Index at acceptance:—Classes 81(1), E1A(3B3:4A2:4A3:4A4:7B); and 91, D2(F:H:J:K:N:Q:V).

International Classification:—A61I (D06I).

COMPLETE SPECIFICATION

Sanitising Composition

I, HAROLD ALBERT HADLEIGH CROWTHER, a British Subject, of Pearman's Glade, Shinfield Green, Berkshire, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to a sanitising composition, particularly intended for sanitising napkins.

It is of the greatest importance that soiled napkins should be sufficiently cleaned for re-use but whilst the mother will usually insist that whiteness must be achieved to conform to standards of hygiene, the more subtle aspect of bacteriological cleanliness is not appreciated and extensive tests we have made show that even where the standards of washing are high there is, all too frequently, a survival of coliaerogenes bacteria. These supposedly sterile napkins may be handled by the mother at such times that in preparing a feed the coliform contamination can easily be transmitted by her hands from the napkin to the bottle teat with serious risk of gastric enteritis resulting. It has been shown that the very troublesome napkin rash which is so distressing to the baby is chiefly caused by the presence of an organism (*Brevibacterium ammoniagenes*) which causes breakdown of the urine with the release of ammonia, the latter producing what is virtually an alkaline burn on the baby's tender skin.

Another problem in dealing with napkins is their disposal during the period prior to washing. A pungent and very penetrating odour can result if they are left in a pail, even though this be covered.

With the foregoing in view the present invention aims at a composition which will (a) sterilize the napkin, (b) make it visibly white, (c) remove stains from it and (d) do-odorise it.

The composition according to the present invention comprises (a) hexachlorophene [2,

2'-methylene bis. (3,4,6 trichlorophenol)], tetra methyl thiuram disulphide $[(CH_3)_2NC(S)S]$ and/or one of the bactericidal quarternary ammonium compounds, such as benzalkonium chloride, (b) an oxygen-releasing persalt, e.g., sodium percarbonate and/or sodium perborate; (c) an optical bleach and (d) a re-odorant in the form of a perfumer's concentrate.

An optical bleach is a dye having the property of absorbing ultra violet light and emitting a visible blue light which gives the appearance of brilliant whiteness.

I prefer a composition comprising by weight from 5 to 20% of benzalkonium chloride as being a particularly potent sterilising agent with high wetting power; from 0.02 to 0.04% of an optical bleach; from 30% to 60% of sodium perborate to provide an active source of oxygen for the removal of stains and a re-odorant in the form of a perfumer's concentrate and in an amount ranging from 0.05 to 0.25%.

An example of a satisfactory composition according to the invention is as follows:—

Benzalkonium chloride	-	-	10.0%
Fluorescent dye	-	-	0.03%
Sodium perborate	-	-	57.37%
Re-odorant	-	-	0.1%
Ethylene oxide condensate	-	-	2.5%
Sodium tripolyphosphate	-	-	30.0%

The ethylene oxide condensate is a non-ionic detergent which is included with advantage as in this example, and may be present in quantities ranging from 1 to 10%. Such a condensate as that sold by the I.C.I under the Registered Trade Mark "Lissapol NX" will serve.

The presence of sodium tripolyphosphate is advantageous in quantities of from 10 to 40% to remove lime soap deposit in the fibres in the actual washing operation, as for example if soap had been previously used with hard water as the washing agent.

Any good perfumer's concentrate recom-

mended by the special manufacturers for this purpose will serve for the re-odorant in quantities ranging from 0.05 to .25%.

- 5 A given amount of the composition will ordinarily be added to water, e.g., half-ounce per half-bucket of hand-warm water. The soiled napkins can be dropped in the pail and remain there until the day's total is later washed. The solution is active during the
10 standing period and the subsequently properly washed product will be both sterile and clean.

The percentages herein given are by weight.

WHAT I CLAIM IS:—

- 15 1. A sanitising composition particularly intended for sanitising napkins comprising (a) hexachlorophene [2, 2' - methylene bis (3, 4, 6 trichlorophenol)], tetramethyl thiuram disulphide $[(CH_3)_4NC(S)S]$, and/or one of the bactericidal quaternary ammonium compounds; (b) an oxygen-releasing persalt; (c)
20 an optical bleach as herein defined and (d) a re-odorant in the form of a perfumer's concentrate.

- 25 2. A sanitising composition according to Claim 1, in which the substance consisting (a) is benzalkonium chloride, being a quaternary ammonium compound.

- 30 3. A sanitising composition according to Claim 1 or 2 in which the substance constituting (b) is sodium percarbonate, and/or sodium perborate.

4. A sanitising composition according to Claims 2 and 3, in which benzalkonium chloride is present in an amount of from 5 to 20%; the optical bleach is present in an amount from 0.02 to 0.04%; sodium perborate is present from 30% to 60% and the re-odorant in the form of a perfumer's concentrate in an amount of from 0.05 to 0.25%. 35

5. A sanitising composition according to Claim 4, also containing from 1 to 10% of an ethylene oxide condensate. 40

6. A sanitising composition according to Claim 4 or 5 also containing from 10 to 40% of tripolyphosphate. 45

7. A sanitising composition substantially as herein set forth in the specific example.

8. The method of sanitising napkins which consists in soaking them for a prolonged period in a solution consisting essentially of a chlorine-containing sterilising agent; a stain removing agent; and whitening agent such as an optical bleach and a re-odorant with or without subsequent rinsing. 50

9. The method of sanitising napkins which consists in soaking them for a prolonged period in a solution of composition according to any one of the preceding Claims 1—7. 55

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